### Module title
Mathematics in German Grundschule (Arithmetic, Geometry and Application of Mathematics)

### Abbreviation
10-M-MGS-092-m01

### Module coordinator
Dean of Studies Mathematik (Mathematics)

### Module offered by
Institute of Mathematics

### ECTS
10

### Method of grading
numerical grade

### Duration
2 semester

### Module level
undergraduate

### Other prerequisites
--

### Contents
Discussion of central topics in teaching mathematics in Grundschule taking into account subject-specific and didactic aspects as well as possibilities of implementation in the classroom, also including modern technologies.

### Intended learning outcomes
The student is acquainted with the mathematical basics of elementary school mathematics and can explain them. He/She knows about the objectives of teaching mathematics in elementary school, fundamentals of developmental psychology and didactics of mathematics, as well as important models, presentations and media which can be employed in teaching mathematics in elementary school. She/he knows about common difficulties and problems of pupils in the acquisition of mathematical skills, and can employ didactical principles and teaching and learning strategies.

### Courses
This module comprises 3 module components. Information on courses will be listed separately for each module component.

- **10-M-MGS-P-092:** M (no information on SWS (weekly contact hours) and course language available)
- **10-M-MGS-1-092:** V + Ü (no information on SWS (weekly contact hours) and course language available)
- **10-M-MGS-2-092:** V + Ü (no information on SWS (weekly contact hours) and course language available)

### Method of assessment
Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments.

#### Assessment in module component 10-M-MGS-P-092: Mathematics in German Grundschule (Exam in Arithmetic, Geometry and Application of Mathematics)
- 1 ECTS, Method of grading: numerical grade
- written examination (approx. 120 minutes); if announced by the lecturer, the written examination can be replaced by an oral examination of one candidate each (approx. 15 minutes) or an oral examination in groups (groups of 2: approx. 20 minutes, groups of 3: approx. 30 minutes) or by a written and/or multimedia portfolio (as announced)
- Only after successful completion of module components: Successful completion of the two module components 10-M-MGS-1 and 10-M-MGS-2 is a prerequisite for participation in module component 10-M-MGS-P.

#### Assessment in module component 10-M-MGS-1-092: Mathematics in German Grundschule (Arithmetic)
- 5 ECTS, Method of grading: (not) successfully completed
- exercises: At the beginning of the course, the lecturer will specify the type and scope of exercises to be successfully completed over the course of the semester for the module component to be considered successfully completed.

#### Assessment in module component 10-M-MGS-2-092: Mathematics in German Grundschule (Geometry and Application of Mathematics)
- 4 ECTS, Method of grading: (not) successfully completed
- exercises: At the beginning of the course, the lecturer will specify the type and scope of exercises to be successfully completed over the course of the semester for the module component to be considered successfully completed.

<table>
<thead>
<tr>
<th>Allocation of places</th>
<th>--</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional information</td>
<td>--</td>
</tr>
<tr>
<td>Referred to in LPO I (examination regulations for teaching-degree programmes)</td>
<td>§ 36 (1) 7. Didaktik der Grundschule Mathematik</td>
</tr>
<tr>
<td>Module appears in</td>
<td>First state examination for the teaching degree Grundschule Pedagogy of Primary Education (2009)</td>
</tr>
<tr>
<td></td>
<td>First state examination for the teaching degree Grundschule Didactics in Mathematics (Primary School) (2009)</td>
</tr>
<tr>
<td></td>
<td>First state examination for the teaching degree Sonderpädagogik Pedagogy of Primary Education (2009)</td>
</tr>
<tr>
<td></td>
<td>First state examination for the teaching degree Sonderpädagogik Didactics in Mathematics (Primary School) (2009)</td>
</tr>
</tbody>
</table>